

REMARKS

General Remarks

Claims 1-69 are all the claims currently pending in the present application.

Claims 1, 3-5, 7-9, 11-13, 15-17, 19-21, 23-24, 32, 34-36, 38-40, 42-44, 46-48, 50-52, 54, 55, 63-64, 65, and 67-69 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kano et al., U.S. Patent No. 5,359,513 ("Kano"). Claims 2, 6, 10, 14, 18, 22, 25-31, 33, 37, 41, 45, 49, 53, 56-62, and 66 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kano, in view of Lemelson et al., U.S. Patent No. 5,878,746 ("Lemelson"). Applicant respectfully traverses these rejections as explained below.

Claims rejections under §102(b)

Regarding the Examiner's rejection of Claims 1, 3-5, 7-9, 11-13, 15-17, 19-21, 23-24, 32, 34-36, 38-40, 42-44, 46-48, 50-52, 54, 55, 63-64, 65, and 67-69 over Kano, Applicant submits that Kano fails to disclose or suggest all of the limitations of the present invention as claimed, for at least the following reasons.

Claims 1 and 32. With respect to Claims 1 and 32, Applicant submits that Kano fails to disclose or suggest at least: "recording history data on past inter-image operations," as recited.

Regarding this limitation, Applicants respectfully submit that Claims 1 and 32 are patentable for at least those reasons of record, previously presented in Applicant's Amendment under 37 C.F.R. § 1.111 filed on May 18, 2004. More specifically, Applicant notes that claims 1 and 32 each require two discrete aspects. The first element requires carrying out an inter-image operation to obtain processed image data therefrom. The second element requires recording

history on past inter-image operations. The Examiner relies on Figure 11A and col. 12, ln. 55 through col. 13, ln. 18 as disclosing this limitation. (Office Action, p. 2). However, Applicant respectfully submits that the cited portions of Kano merely describe the processing of image data through a mapping of shift values and the storing of the result of a subtraction calculator, and fail to disclose or suggest recording history data on past inter-image operations.

Additionally, Applicant respectfully submits that the Examiner's argument that Kano's description of storing the result of the subtraction calculator device 210 in memory 220 anticipates the claimed limitation of "recording history data on past inter-image operations" appears to ignore the phrase "history data" in Claims 1 and 32. In other words, the Examiner appears to focus on the storing of a subtraction image and not on any history data related thereto. Applicant respectfully submits that "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,"¹ and that "All words in a claim must be considered in judging the patentability of that claim against the prior art."² Therefore, the Examiner must consider the above-noted claim limitation as a whole.

Therefore, for at least the above-described reasons, Applicant submits that Kano fails to anticipate Claims 1 and 32 and respectfully requests that the rejection thereto be reconsidered and withdrawn.

¹ Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987).

² In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Claims 3-5, 7-9, 11-13, 15-17, 19-21, 23-24, 34-36, 38-40, 42-44, 46-48, 50-52, 54, 55, 65, and 67-69. With respect to Claims 3-5, 7-9, 11-13, 15-17, 19-21, 23-24, 34-36, 38-40, 42-44, 46-48, 50-52, 54, 55, 65, and 67-69, Applicant respectfully submits that these claims are patentable at least by virtue of their dependence on Claims 1 and 32 and for the following additional reasons.

Regarding Claims 3, 7, 11, 15, 19, 23, 34, 38, 42, 46, 50, and 54, Kano fails to disclose or suggest “wherein the history data on the past inter-image operations are attached to the processed image data obtained through the inter-image operation,” as claimed. Regarding Claims 4, 8, 12, 16, 20, 24, 35, 39, 43, 47, 51 and 55, Kano fails to disclose or suggest “wherein the history data on the past inter-image operations are attached to each of said two or more sets of the base image data used for calculating the processed image data,” as claimed. The Examiner refers to col. 4, lns. 57-68 (“a pair of first and second images (step 10, 20), image registration and then subtraction”) and col. 5, lns. 34-47 as disclosing these limitations. Contrary to the assertion of the Examiner, however, and as discussed above with respect to Claims 1 and 32, *all* words in a claim must be considered in judging the patentability of that claim. At most, the cited portions of Kano describe digitizing a pair of images, registering the images, mapping shift values, and subtracting the images. As discussed above with respect to Claims 1 and 32, Kano fails to disclose or suggest recording history data on past inter-image operations. Further, there is no disclosure in the cited portion of Kano or anywhere else in the reference of attaching any information to processed image data or to each of two or more sets of base image data, as claimed.

Regarding Claims 5 and 36, Kano fails to disclose or suggest “wherein the history data on past inter-image operations include information identifying the base images each represented by one of said two or more sets of the base image data used for calculating the processed image data,” as claimed. Applicant notes that col. 5, lns. 1-22, referred to by the Examiner (Office Action, p. 5), disclose digitizing mages, selecting ROIs, image registration, non-linear warping, subtraction, and viewing by a radiologist. However, neither this section, not any other section of Kano discloses or suggests history data including information identifying base images, as claimed. Further, in the current Office Action, contrary to the requirements of MPEP §707.07(f), the Examiner has not responded to these arguments as previously presented in Applicant’s May 18 Amendment under 35 U.S.C. § 1.111. Accordingly, those arguments remain rebutted, and independent claim 1 is allowable at least for those reasons previously of record.

Regarding Claims 9, 17, 40, and 48, Kano fails to disclose or suggest “wherein the history data on past inter-image operations include such data indicating whether or not the processed image data on certain processed image have already been obtained,” as claimed. Again, contrary to the requirements of MPEP §707.07(f), the Examiner has failed to respond to Applicant’s arguments relating to this limitation, presented in Applicant’s May 18 Amendment. Applicant submits that col. 5, lns. 24-33 and col. 8, lns. 59-66, referred to by the Examiner as disclosing this limitation (Office Action, p. 5), disclose “matching between each corresponding pair of POIs and comparing the result,” and that “best match location are selected to perform a fine search for local matching in the second step for accuracy,” However, neither of these sections of Kano, nor any other section of Kano, disclose or suggest anything relating to history

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data or to history data including whether or not processed image data has already been obtained, as recited. Therefore, due to the Examiner's failure to respond, these rejections remain rebutted.

Regarding Claims 13, 21, 44, and 52, Kano fails to disclose or suggest at least history data on past inter-image operations including information on recording sites of the processed inter-image data and fetching the processed inter-image data, instead of conducting the inter-image operation anew, if it is found by referring to the history data that the a desired set of processed image data has already been obtained, as claimed. Again, contrary to the requirements of MPEP §707.07(f), the Examiner has failed to respond to Applicant's arguments relating to this limitation, presented in Applicant's May 18 Amendment. Applicant submits that neither the cited portion of Kano, col. 12, lns. 55-68 (Office Action, p.6), nor any other portion discloses or suggests history data, as discussed above with respect to Claims 1 and 32, or fetching and outputting stored processed image data if it is found, referring to history data, that the desired processed image data has already been obtained, as recited in Claims 13, 21, 44, and 52. Therefore, due to the Examiner's failure to respond, these rejections remain rebutted.

Therefore, for at least the above-described reasons, Applicants submit that Kano fails to anticipate Claims 3-5, 7-9, 11-13, 15-17, 19-21, 23-24, 34-36, 38-40, 42-44, 46-48, 50-52, 54, 55, 65, and 67-69 and respectfully requests that the rejections thereof be reconsidered and withdrawn.

Claim rejections under §103(a)

Regarding the Examiner's §103(a) rejection of Claims 2, 6, 10, 14, 18, 22, 25-31, 33, 37, 41, 45, 49, 53, 56-62, and 66 over Kano and Lemelson, Applicant submits that Lemelson fails to

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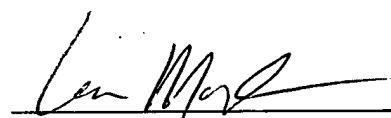
remedy the above-discussed deficiencies of Kano, and therefore, these claims are patentable at least by virtue of their dependence on Claims 1 and 32. Thus, Applicant respectfully requests that the rejection of Claims 2, 6, 10, 14, 18, 22, 25-31, 33, 37, 41, 45, 49, 53, 56-62, and 66 be reconsidered and withdrawn.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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